Major Energy Users Inc.

Australian Energy Regulator

Better Regulation

Expenditure Incentives

Comments on the Issues Paper

Submission by

The Major Energy Users Inc

April 2013

Assistance in preparing this submission by the Major Energy Users Inc (MEU) was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

This project was part funded by the Consumer Advocacy Panel (www.advocacypanel.com.au) as part of its grants process for consumer advocacy and research projects for the benefit of consumers of electricity and natural gas.

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Summary of MEU views

The MEU agrees with the guidelines in principle, but sees that there are far too many aspects and inter-relations embedded within the proposals that we believe provide NSPs with far too many opportunities to game the regulator. The MEU provides details of its concerns in this submission.

The AER is urged to review its proposed guidelines against the background of the overwhelming incentives already available to NSPs which include:

- Overstatement at a revenue reset of expected replacement capex leads to an inflated allowance, providing a benefit should the actual need be lower – this is entirely within the control of the NSP[1]
- Automatic roll in of capex (incentivises overspend of capex subject to the now required review when there is an overspend)
- Allowing deferral of replacement capex to another regulatory period incentivises overstatement of replacement capex
- Differential between allowed WACC and actual WACC incentivises overspend of capex
- Capitalising opex incentivises gaming of the opex incentive scheme
- Inflated depreciation via DORC incentivises earlier cash flow
- Rapid depreciation incentivises earlier cash flow

The MEU considers that incentive schemes should provide for continuous improvement, and not be the initial driver of setting allowances near the efficient frontier. Setting efficient allowances is the role of benchmarking.

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[1] In contrast, augmentation capex is dependent on the actual growth which is not controlled by the NSP as it is exogenous

1. Introduction

The Major Energy Users Inc (MEU) welcomes the opportunity to provide input into the AER review of the Expenditure Incentives guideline that it is required to develop as a result of the recent changes in network regulation in the National Electricity and Gas Rules.

1.1 About the MEU

The Major Energy Users Inc (MEU) represents some 20 large energy using companies across the NEM and in Western Australia and the Northern Territory. Member companies are drawn from the following industries:

- Iron and steel
- Cement
- Paper, pulp and cardboard
- Processed minerals
- Fertilizers and mining explosives
- Tourism and accommodation
- Mining

MEU members have a major presence in regional centres throughout Australia, e.g. Western Sydney, Newcastle, Gladstone, Port Kembla, Mount Gambier, Whyalla, Port Pirie, Westernport, Geelong, Kwinana and Darwin.

The articles of association of the MEU require it to focus on the cost, quality, reliability and sustainability of energy supplies essential for the continuing operations of the members who have invested $ billions to establish and maintain their facilities.

1.2 The source of the MEU commentary

The MEU has reviewed the Issues Paper released by the AER and has addressed the various aspects based on feedback from its members which are all substantial corporations and operate in competitive markets.

The MEU members operate in markets which are highly capital intensive and therefore their operational experiences are of a similar nature to those of the energy network businesses. Using the feedback from its members, the MEU is therefore competent to provide input into the various aspects addressing the build up of costs that the AER is required to provide when developing the regulatory allowances for regulated energy network service providers.

MEU members all operate with financing from debt and equity sources (sought in the most efficient manner as and when required), price their products so that costs are recovered yet remain competitive with others making similar products,

maintain their assets so they provide the necessary uptime to enable them to stay in the market and invest to replace non-performing assets and to manage growth in their markets. As these are the same issues faced by regulated networks, the MEU members are able to provide first hand observations to the AER about the various elements of the cost structures that regulated networks operate with.

The MEU members all recognise that the network services provided are essential to their long term viability, just as are the many other providers of inputs into each member's operations.

1.3 The focus of the incentives

The AER, in its Issues Paper states that the prime purpose of the incentive is to encourage the NSP to use less of the allowance (capex and opex) than the AER provides. The AER will then use the revealed cost under-run to assist in setting future allowances for capex and opex and so pass onto consumers the benefits of the NSP endeavours to limit their cost allowances in the future.

The AER uses its Efficiency Benefit Sharing Scheme (EBSS) to encourage the NSP to use less opex than was allowed and then to provide a reward over the next five years to reflect the savings made against the allowances. Currently there is no incentive scheme for capex.

In principle the MEU accepts that this approach has merit and that (as discussed below) such an approach reflects to some extent the benefits that are seen on the competitive environment when a firm reduces its costs. Under an incentive regime, an NSP has the option of continuing with its current practices or striving to gain the rewards for reducing costs.

To have the NSP to continue to strive for further rewards, the value of the rewards (the power of the incentive) needs to be sufficiently strong to make it worthwhile to seek further savings. Equally, if the power of the incentive is too high, then consumers will pay rewards that are out of proportion with the benefit that consumers gain in the future.

There is, however, one over-riding aspect that must be assessed as part of the incentive scheme and its rewards – that the allowance set in the final revenue reset must be efficient in the first place and reflect the efficient costs that an NSP needs to provide the service. Unless this initial allowance is near the efficient frontier, then the incentive approach merely provides the NSP with an additional source of revenue. This means that there is a need to harmonise the outcomes of the guidelines for setting efficient costs with that for the incentive schemes.

At its most basic, the incentive scheme provides the NSP with another opportunity to "game" the regulator into allowing more expenditure than is

needed, making the achievement of the reward an easy task and the reward payments higher than they should be:

For example:

- In the setting of the opex allowance, the AER has used the revealed costs for the "efficient year" and then develops the new allowance by adjusting the revealed costs. This efficient year is usually the fourth year of a period, as this is seen to provide the latest actual "efficient" cost data. This incentivises the NSP to "load up" the pre-determined efficient year with costs from other years, allowing the EBSS to deliver same rewards if the transfer of costs had not be made, but to provide the basis for overstating the costs. Whilst the AER alleges that the incentive scheme prevents this occurring, the MEU is of the view that the AER has failed to recognise the financial rewards of an NSP doing this.
- After setting the capex allowance for a period, if the allowance includes costs for some capital works but the works are deferred, the NSP gets the benefit of the depreciation and return on the capex allowed for in the period. If that project is reintroduced in the next period in the first year of the period, the NSP provides no benefit to consumers by deferral of the capex[2] but has received a reward for deferring the project. Not only do consumers get no benefit from the deferral but they could also be exposed to higher risks because of the deferral.

It is therefore a critical element of the incentive programs that the allowances provided are at (or at least near) the efficient frontier, so that consumers are not exposed to providing rewards that have not been earned. There have been far too many instances during previous rounds of pricing reviews of deferred capital works by the NSPs and there is every expectation that NSPs will continue with this practice, especially if the AER applies, what is essentially an open door mechanism.

1.4 Some clarifying realities

In order to provide the best input to the AER development of the guidelines, the MEU sought advice from its members regarding the way they address the issue of incentives seen in the competitive markets.

The principle of providing incentives to regulated entities is that they hopefully provide a reward to a regulated entity for reducing their costs/unit so that consumers will benefit in the longer term. Under a competitive environment, firms must continually reduce their costs/unit (or increase the quality of the

[2] If the project is introduced later in the period, then consumers would get the benefit of the deferral for the number of years after the first year of the period

product) in order to maintain their market share. Regulation is applied to monopolies as a surrogate for providing these rigours of competition.

In a competitive environment, a firm which identifies a way to reduce its costs/unit will be rewarded by the market by increased sales or a higher selling margin. As its competitors will seek to replicate the reduced costs/unit being achieved by its competitor, the duration a firm will enjoy the benefits of its reduction in costs/unit will be eroded over time. Under incentive regulation, a reward is provided to a regulated firm for reducing its costs (and passing these to consumers) but the incentive should only for a limited period of time to replicate the fact that these benefits will reduce as its competitors "catch up" with the market leader.

The MEU therefore agrees that incentives could apply to regulated firms but the benefits of the incentives should have a limited duration.

In a competitive environment, the market determines the extent of the reward for reducing costs by a firm. It could be that a major technical breakthrough might deliver a considerable reward which applies for a significant time. Equally, the reduction in costs might be modest and be readily achieved by competitors resulting in a reward for a very limited period. The challenge for applying this concept to a regulated monopoly is to identify the extent of any reward that can be garnered and the duration over which the reward will continue.

Regulators have tended to set reward periods to be for the five year regulatory period most frequently used. Based on the experience of firms in competitive markets, this period is probably longer than that is seen in the wider market. At most, such a period would be no longer than 15 years as this is the commonly accepted period for patent protection. Generally, such technological change that would require patent protection is unlikely to apply to energy networks which are mature businesses, with the result that the period for retention of savings will be much shorter than patent protection periods. Equally, firms operating competitively commonly see that the period of their cost reduction programs are "caught up" by their competitors within 12-24 months as their competitors identify the benefits and source of the cost reduction programs through market intelligence and/or public statements required by the stock exchange. Even though it is probable that the reward periods seen in the competitive market are likely to be less than five years currently used by regulators, it is practical to set such reward periods as the same duration of the regulatory period. On this basis, a reward period should not exceed five years and this will provide a conservative allowance, favouring the regulated networks.

The AER discusses that the current arrangement allows the NSP to retain the benefit of the under-run in the year that it occurs and for the rest of the regulatory period. The incentive scheme (the EBSS) ensures that the benefit applies for the full five years by allowing for a carryover into the next regulatory period.

The value of the reward in a competitive market is less readily identified. The AER, in its Issues Paper, discusses the "power of the incentive" which is to be equivalent to the size of a reward that would benefit the firm in the competitive environment as a result of the cost reduction achieved. At most, the entire cost reduction might apply if competitors do not reduce their costs and market shares stay unchanged, but this is unlikely to occur, as the market does react quickly to changes.

It is clear that the incentive provides a reward in excess of that which is most likely to apply in a competitive market and is therefore clearly biased in favour of the NSP.

1.5 The basis of the MEU approach to the guideline

In developing its observations and conclusions about the issues raised by the AER, the MEU has started its approach from first principles.

These are:

- All corporations are required to act in the interests of their shareholders. All corporations must operate under basic business fundamentals to ensure they meet both their commercial and statutory requirements regardless of the market(s) in which they operate. At its most basic, they operate to maximise the profit they make for their shareholders. The financial "rules" they operate with to achieve this outcome are the same regardless of the market they operate within.

  This means that the financial approaches used by every firm are essentially the same, and the AER can access this larger pool of information in order to assist it in its development of the funding required by a regulated firm.

- Network businesses are only regulated because they are natural monopolies in the markets in which they operate. Despite being monopolies they must still operate to meet the business imperative[3] and within basic business fundamentals. This is an important aspect because it means that the regulatory review and reset process should recognise that regulated firms operate under conventional business practices.

- Economic regulation is about providing the firm with sufficient revenue so that it can deliver the services in the most efficient manner and that the rewards from doing so are sufficient that it continues to invest efficiently to continue to do so. The building block is one approach to providing the

[3] This is that firms must make a profit

"bucket of money" determined by the regulator in response to applications by the regulated firm and is deemed to be adequate to provide the service. It is the sum of the total allowance that is critical rather than the development of any of the individual elements of the building block. Once the "bucket of money" has been set, the regulated firm has total freedom to use those funds in anyway they consider will allow them to meet their business obligations.

- Markets do change over time and therefore there is a need to adjust cost inputs to ensure that:
    - The service provider can continue operating over the long term
    - Consumers are not paying more than is necessary

  This need to review prices and cost inputs is addressed by allowing regulatory reviews to occur regularly. In particular, this regular review process allows the regulator to ensure that the allowances made are still sufficient for the needs of the regulated firm, thereby limiting its risks.

- Incentive regulation (which the AER is required to apply) is about providing a regulated firm with the scope to implement better (more efficient) ways of providing the service. Over time the benefits of these better ways are expected to flow through to consumers. Historically, this has applied to opex but it can apply to other elements such as capex[4].

- In a competitive market, competition ensures that each supplier into the market is operating efficiently. In a regulated market, the regulator only allows the regulated firm certainty in its recovery of its efficient costs. In this regard, the second reading speech by the Minister when introducing the new National Electricity Law in 2005 stated that[5]:

  > "The market objective is an economic concept and should be interpreted as such. For example, investment in and use of electricity services will be efficient when services are supplied **in the long run at least cost**, resources including infrastructure are used to deliver the greatest possible benefit and there is innovation and investment in response to changes in consumer needs and productive opportunities.

[4] It should also apply to the cost of debt but so far approaches to develop a mechanism that provides a WACC exclude incentivising reducing the cost of debt and passing this benefit to consumers

[5] Hansard, SA House of Assembly Wednesday 9 February 2005, page 1452

> The long term interest of consumers of electricity requires the economic welfare of consumers, over the long term, to be maximised. If the National Electricity Market is efficient in an economic sense the long term economic interests of consumers in respect of price, quality, reliability, safety and security of electricity services will be maximised."[emphasis added]

The importance of this explanation as to what the Law (and the Rules) requires[6], is that it provides a definition as to what is intended by the term "efficient". The MEU considers that the AER needs to similarly define "efficiency" in its guidelines and how it will interpret the requirements of the Law in relation to "efficiency". In particular, the AER needs to clarify that if an outcome of its processes does not result in efficiency as is define by the Minister in his second reading speech, then its processes must be changed to ensure that the outcome is "efficient" as was intended. The benefit of defining "efficiency" in this way will provide the AER the ability to discern between competing aspects of the principles it proposes to develop its guideline.

In this regard, the MEU points out that in the past the AER has considered that regulatory certainty (such as the continued use of its flawed debt cost element in the Statement of Regulatory Principles) was more important than ensuring that the outcome of its deliberations reflected efficient practices. An emphasis on the Objective and the definition of efficiency should prevent this occurring in the future.

- Too often, regulators overlook the importance of cash flow as a driver of certain business activities. Whilst two options might be seen as equivalent in terms of net present value, as a general rule, an option with an immediate cash flow benefit will be used in preference to one with a later cash flow impact, even when the deferred cash flow option delivers a better outcome in terms of profitability. Therefore an incentive which delivers an earlier cash flow benefit will more likely be implemented.

[6] The MEU points out that the purpose of a second reading speech is to explain the intent of the Law being made so that interpretations of the Law are consistent with the intent.

2. Capex incentives

The focus of an incentive on capex is to reduce the amount of capital used and ensure that what capital is used is used most efficiently.

Capital used by a firm is sourced primarily from two sources – debt and equity – although other sources of capital are also used, such as amounts retained for future liabilities.

Firms are able to acquire debt on their ability to guarantee interest payments and the demonstration of an ability to repay the debt at the due date. The more certain the amount of cash flow and the value of the underlying assets (in the case of regulated monopolies both of these are very high) the greater the amount of debt that can be acquired.

The source of equity is primarily the use of retained earnings, although new equity raisings are theoretically possible, this is an avenue that most firms do not take as this tends to reduce the value of shares already issued impacting existing shareholders.

This means that there is an inbuilt limitation on capex that is available to a firm. Firms in a competitive environment, with less certain cash flows and less certainty of the value of fixed assets compared to regulated monopolies have a greater limit on their available capital and therefore are forced to ration capital to aspects where they are deemed to provide the greatest value.

In the case of regulated monopolies, lenders can readily identify the cash flows and retention of the value of the fixed assets and therefore there is less stricture imposed on them by the market in terms of debt raising. This provides greater freedom to invest in their assets than is seen by forms in competitive environments. Thus there is an inbuilt capacity to overspend in a regulated environment.

The rate of return achieved by a firm has a great impact on the ability to acquire new capital, especially debt. If the achieved rate of return on capital is higher than the cost of capital available, then there is an incentive to invest more in the activities of the firm. In a competitive environment, there is no certainty that the rate of return achieved in one year will be replicated in following years as there is no certainty that the firm's profitability will be consistently achieved. In this regard, the firm's rate of return is an outworking of what has already occurred and is not a forecast of the future

In contrast, a regulated firm has its rate of return determined into the future for a five year period (or longer) and the rate of return for subsequent years will reflect the same basis on which the rate of return was developed by the regulator. If the rate of return set by the regulated is higher than the actual costs of acquiring capital by the firm, then there becomes an inbuilt incentive to invest

more than is efficient because the rewards for doing so are significant. This in turn, increases the ability of the regulated firm to more readily access capital.

Therefore, in addition to the obvious approaches to addressing incentives to limit spending, the incentive regime must also address the realities that a regulated firm has inbuilt incentives to overspend through its:

- Greater and easier access to capital
- Any differential between its actual costs of capital and the rates of return allowed by the regulator

2.1 Issues that must be addressed

There are a number of short comings in the current arrangements that must be addressed to overcome the drivers on NSPs to use the Rules in order to increase the rewards they can get through their capex program at the expense of consumers.

These are:

1. Currently an under-run in capex in a given year will provide a benefit for the rest of the regulatory period. The extent of the benefit erodes with the elapsed time of the regulatory period, with the benefit having less value to the NSP the later in the period. A saving made in year 1 has a compounding effect over the following 4 years, whereas a saving in year 5 has virtually no benefit. At the end of the period, actual capex is rolled into the asset base.

2. Similarly, an over-run in capex early in the period provides a loss to the NSP, but as the period passes this disincentive reduces. At the end of the period, actual capex is rolled into the asset base, preventing any further losses.

3. To manage this mismatch in rewards, an NSP is incentivised to under-run capex in the early years and rebalance the capex by overspending in the last years. This provides a net benefit to the NSP in terms of both return on capex and return of capex (depreciation). There is a net benefit to the NSP through this means even though the actual capex is the same as that allowed ex ante in the regulatory decision.

4. There is an inherent risk increase to consumers from project deferral due to the potential for reduced service standards caused by the deferral. To prevent this increased risk, there must be a match in the power of the incentives between the saving of deferral to the NSP and the cost to the NSP of providing lower service standards through the service standards incentive scheme.

5. There is a further capex benefit inherent in the current arrangements – this relates to project deferment. If the NSP has included in its ex ante allowance an amount which is related to a specific project. If this project is deferred (resulting in an under-run of capex) the same project can be reintroduced in the next period. The return of and return on the capex for this project in the period is not required by the NSP allowing the NSP a benefit. If the project is then included in the following period, the return of and the return on the capex for this project is included in the next period so there is no benefit to consumers for the deferral of the project but a considerable reward to the NSP[7].

6. There is no ex post review of capex providing the ability for the regulator to disallow capex which is not efficient. At its extreme, an NSP could use all of its allowed capex to purchase any assets at all and that these must be rolled into the asset base, even if the capex is demonstrably inefficient[8].

The new Rules provide a number of tools for the regulator to better manage the capex programs. These allow the AER to use different depreciation (actual or forecast), the ability to carryout an ex post review to exclude inefficient capex when actual capex exceeds the ex ante allowance and the introduction of an incentive scheme to reward the NSP for under-runs and penalise for over-runs.

Additionally, the new Rules provide the AER with greater responsibility for assessing efficient expenditure and the tools to manage this. The new Rules also require the AER to develop a new approach for setting efficient rates of return that result in efficient allowances.

As a result of the new tools, the AER has developed concepts for a capex efficiency sharing scheme and by varying depreciation allowances. The MEU considers that these new tools could address some of the detriments noted above, but all of them.

Unless all detriments are addressed, then there will remain concerns that the incentive programs will be insufficient to protect the long term interests of consumers.

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[7] In its rule change proposal, the AER suggested a partial solution to this anomaly by rolling forward forecast depreciation rather than actual depreciation into the asset base for the next regulatory period. This would result in the asset base being smaller than if actual depreciation was used in developing the asset base, and there would be a long term benefit to consumers by not paying a return on the difference between actual and forecast depreciation over the economic life of the capex for the project. This does not fully recompense consumers for the benefit the NSP receives.

[8] At one seminar where the current rules were debated, it was pointed out that the NSP could by a fleet of Rolls Royce cars for use by the NSP and the regulator would be obliged to add these to the asset base and require consumers to pay for the cars until they were fully depreciated.

2.2 Limitation of capex

A privately run firm tends to have limitations on its ability to acquire capital (see introductory comments to section 2) and so the firm has to allocate its available capex carefully and wisely. This means that there is an inherent upper limit of capex that firms in the competitive environment have.

As the ability to acquire debt is easier for a regulated monopoly than a firm in a competitive environment, privately owned monopolies do not have this stricture to the same extent, but they are more constrained in this regard than government owned networks[9].

Whilst private ownership of a monopoly might go some way to achieving this inherent stricture on capping capex it is probably insufficient to ensure that capex sought will be automatically efficient.

The AER expresses a concern that capex is "lumpy" and therefore they tend to be conservative in their allowances. This means that the allowed capex is more likely to be more than needed than too low. This has an immediate impact on whether an incentive scheme will be biased to provide rewards rather than penalties.

2.3 Capex and WACC

There are inbuilt incentives to overspend that are inherent in the regulatory process (see introductory paragraphs to section 2). The AER also identifies that if the WACC allowed by the regulator is higher than the WACC required by the NSP, then there is an incentive to overspend.

Further, the current approach incentivises network solutions to non-network solutions to network augmentation. Non-network solutions to network needs are treated as opex and therefore, being cost recovery only, provide no financial benefit to the NSP. In contrast, a network solution provides a profit recovery through the application of the rate of return, as the profit an NSP is provided is in the market risk premium element of the WACC formula applied to the asset base. The NSP is therefore incentivised to calculate the cost of a network solution to be lower than a non-network solution in any RIT process and if the ultimate cost of the network solution is higher than the non-network solution there will be no penalty to the NSP if the overall capex is lower than the ex ante allowance.

[9] This differential between private and government owned network monopolies has been observed

2.4 Capex and service standards

The very basis of the AER approach to providing incentives for better management of capex, is that there should be a reward for under-running capex and a penalty for over-spend.

In a non-regulatory environment, an under-spend in capex provides an enhanced return to the firm through lower unit costs or an ability to increase market share. As competition erodes benefits achieved through investment (see comments in section 1 above), an incentive reward for under-running capex should have a limited duration so that the regulatory approach reflects the pressures of competition.

In contrast an over-run is a total and immediate loss to a firm and this has to absorb. Under the current arrangements, an NSP only incurs a cost from an over-run until the end of the regulatory period, when the actual costs are rolled into the asset base.

The proposal by the AER is that consumers should continue to carry the bulk of the cost of an over-run, although the AER proposed incentives will reduce (but not eliminate) consumer contributions to address a fault of the NSP. To address this inconsistency, either all capex overspends should be a cost to the NSP or the rate of return on equity should be adjusted to reflect the transfer of the risk to consumers. Currently the rate of return on equity reflects the average to the market rewards (adjusted by an equity beta) and therefore the benefit of the risk transfer has not been provided to consumers.

The MEU considers that an integral element of any capex incentives must also be integrated into the rate of return that is allowed to NSPs.

Capex is provided for three main aspects – to augment the network so that new loads can be managed, to replace ageing assets to maintain reliability of the network and to ensure the operation of the network is most efficient.

In relation to replacement capex, the need for this is seen as an outcome through the measurement of service standards. The AER has service standards incentive schemes in place for NSPs so there is a clear inter-relation between the replacement and operation capex and the service standards provided. This means that the incentives for capex need to be structure so that the incentives to maintain (or improve) service standards do not bias an outcome. For instance, reducing capex for replacement or operation will over time reduce service standards. If the incentive to under run capex provides a greater reward to the NSP than the penalty for under-running service standards, then the NSP will move to provide lower service standards.

2.5 Inter-relationships between different elements and capex

The AER identifies there is potential for a mismatch between opex and capex incentives, which might drive one outcome over another is the incentives are mismatched. The MEU agrees.

As noted above, there is also a need to balance:

- The capex incentive with the mismatch between the regulatory WACC allowed by the AER and the actual WACC incurred by the NSP
- The capex incentive and the service standard incentives

There is thus a need to harmonise to ensure there are complementary incentive programs for capex, opex and service standards and with the WACC.

2.6 Capex efficiency sharing scheme (CESS)

The CESS replicates the opex Efficiency Benefit Sharing Scheme (EBSS) and provides a benefit to the NSP if it under-runs its capex allowance in one year and penalises the NSP if it over-runs in another year. This means that the disadvantages of the EBSS will apply to the CESS as well. The MEU concerns with the EBSS are provided in the next section on opex.

There are two very significant concerns that the MEU has with regard to the proposed CESS. The first is to address the declining power of the incentive over the regulatory period and the second is related to the concern that consumers should not be exposed at all to over-runs

By making the CESS run on a continuous basis, it does impose discipline that capex should not be transferred from one year to a later year thereby averting the weakening of the incentive during a regulatory period. The MEU supports the approach proposed to make the CESS operate continuously over consecutive regulatory periods.

The second issue is addressed in part by the CESS in that consumers are exposed to a lesser impact of over-runs that they are under the current arrangements. A CESS based on the EBSS would provide a symmetrical reward/penalty regime, but this does not address the reality that in a competitive environment, there is a reward for under-running capex which is quickly eroded by competitors whereas the cost of an over-run cannot be passed onto consumers as this would erode the market share held. This means that in the competitive environment the reward/penalty arrangement for under/over spends is heavily asymmetric.

The AER quite rightly recognises that the incentives between underspends in capex and opex have to be equal but, as noted above, so doe the incentives for service standards. The MEU is concerned that the AER, whilst identify that

service standards can be impacted by capex underspends, does not recognise the need to align the service standard incentive schemes with those of opex and capex.

The causes for a capex over spend are many, and an overspend could well be quite appropriate and in the interests of consumers. Equally, overspends could result from poor management and/or incompetence. It is because of this wide variation in causes for overspends that the MEU strongly supports full ex post reviews of all capex, with inefficient capex being excluded from the asset base rather than incentive schemes.

The approach taken by the AER in the CESS to vary the power of the capex incentive asymmetrically between underspends and overspends goes some way to replicate the outcome of capex over/under spends seen in the competitive environment.

2.7 Depreciation as a tool for controlling capex

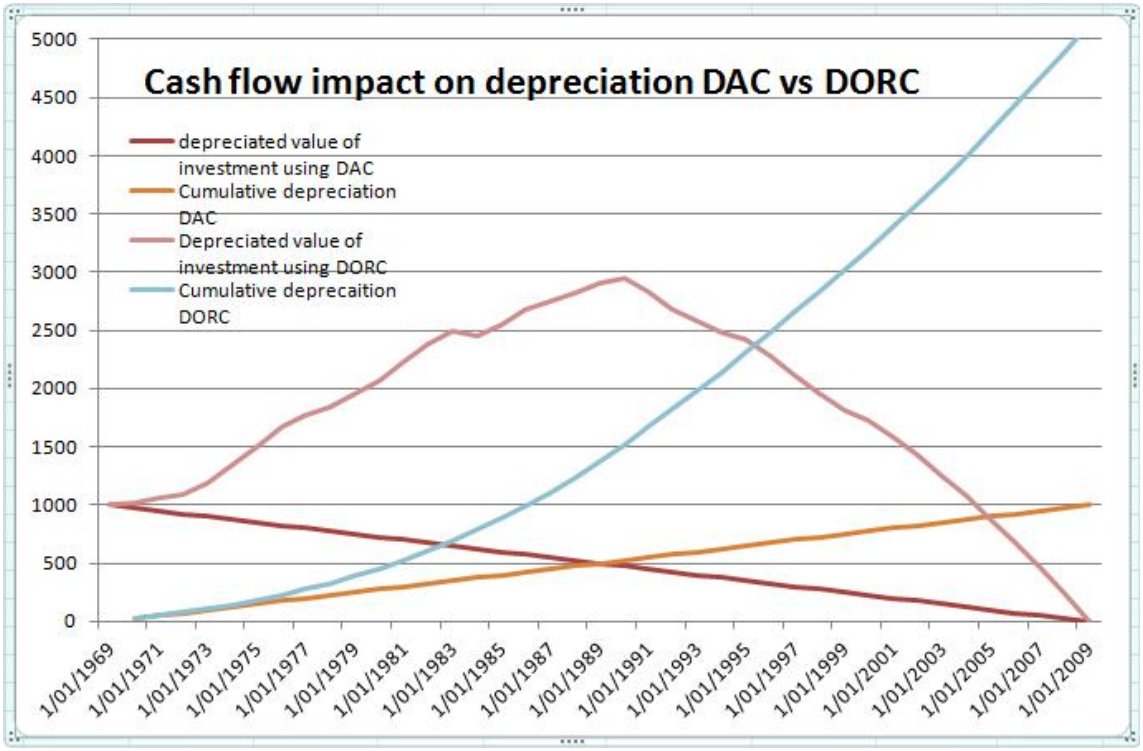
The building block approach to establishing the required “bucket of money” allowed for an NSP includes recovery of depreciation or a return of the capital invested.

In theory, a firm should aim to recover the capital it has invested in providing its products. However, this is not always possible and full recovery of invested capital is not assured – many firms lose all or some of the capital they have invested and this is a result of competition. Competition ensures that a firm is unlikely to recover all of the capital invested all of the time.

Firms operating in competition generally recover (ie depreciate) their invested capex on an actual cost basis whereas regulatory practice is for depreciation to be set against a replacement (inflation adjusted) value for the capex. This has the benefit of increasing the amount of depreciation recovered by the regulatory depreciation method

There is a massive difference on nominal cashflow resulting from the two approaches – deprecated actual cost approach (DAC) used by most firms in a competitive environment and the depreciated [optimised] replacement cost approach (DORC) used by regulators.

The following chart provides the nominal asset value over time based on the two approaches and the amounts recovered as depreciation over a 40 year asset life for a $1000 investment made in 1969 using actual inflation. The chart shows that the actual value of the asset after 40 years is the same under the two approaches, but the amount provided to the regulated firms in depreciation allowances is massive compared to the conventional approach.



Source: MEU calculation, RBA data

What this shows is that using depreciation as a tool will have a greater impact on NSPs than might first be considered. There is a difference between the approach an NSP has regarding its financial accounts and the regulatory accounts. For example, if the NSP uses the depreciated actual cost approach in its financial accounts and the regulatory allowance is based on the depreciated replacement cost, there is a mismatch between the two which provides an enhanced cash flow to the NSP.

When this difference between depreciation amounts is combined with the embedded incentive to maximise cash flow (even at the expense of lower profits) then the interaction cannot be ignored.

The approach suggested by the AER as a method for providing a capex incentive is based on using either the depreciation based on the actual expenditure or the depreciation that was allowed in the regulatory decision (ie forecast capex).

Using forecast depreciation the NSP would

- If the NSP underspent its capex, the NSP would recover a larger amount of depreciation than if actual capex was depreciated and consumers would see a benefit through a lower regulatory asset base (RAB).

- If the NSP overspent its capex, then the NSP would under-recover its depreciation allowance but the RAB would remain larger imposing long term costs to consumers.

The MEU notes that there are observations that using actual capex is a higher powered incentive, but its consultants have identified that the power of the incentive varies with the duration of the deprecation period.

The AER has identified that its default position on depreciation is that it will use forecast depreciation when a CEES is implemented rather than actual depreciation which is the current approach when no CEES is implemented.

The MEU is concerned that the full impact of the different depreciation approaches has not been fully examined, especially when considering the impacts of the other incentives and the inter-relationships of capex with opex, service standards and WACC have been fully assessed.

Without a better understanding of how the approach to depreciation to be used and its impacts, the MEU is not comfortable with providing a view on the more appropriate way forward.

2.8 Ex post assessment of capex

The MEU considers that all capex should be assessed for efficiency. The MEU proposed a rule change to apply this discipline on all NSPs. Implicit in the MEU rule change to optimise all regulated assets, an ex post review of all capex was to be implemented.

Regardless, the MEU considers that all capex should be investigated to assess the efficiency of the investments made. The MEU recognises that under the rules the AER is not able to adjust the actual capex unless the capex allowance has been exceeded, the process of assessing historic capex provides the AER with a better understanding as to how an NSP approaches capex.

For example, if the AER identified from an ex post review of capex that an NSP underestimated the final cost of the works for a network augmentation and that as a result, the Regulatory Investment Test would have otherwise resulted in a different solution, then the AER would be better able to assess claims for future capex.

The AER highlights that the AEMC, in its decision to change the rules commented (page 38):

> "Ex ante incentives may not always provide adequate assurance that capex is efficient. A further check that what is rolled into the RAB is efficient would therefore be in the long term interests of consumers. The review of efficiency

> of past capex should also assist the AER in determining an appropriate ex ante allowance by permitting it to better understand how efficient a NSP has been in the previous period and what projects it has undertaken. It should also improve understanding of the reasons for any overspends."

The MEU agrees with this and considers that it does require an examination of all capex although, unless the capex allowance was exceeded, the MEU accepts that there will be no ex post adjustment to reflect any inefficiency.

The MEU notes that the AER proposes to use a staged approach in its ex post assessment of capex, with particular reference to identifying inefficient capex, related party margins and transfers of opex to capex and vice versa. As an initial point of reference, the AER considers that if an incentive scheme is in place (eg CEES) and the capex has not exceeded the allowance, there is, ipso facto, a view that the capex is efficient and no further examination of the actual capex would take place. The MEU does not agree with this. The MEU considers that all capex needs to be assessed ex post so that the AER has a sound understanding of what has occurred in the past to ensure that the future claims for capex are based on soundly developed and proven practices.

Such an understanding of the way an NSP develops its capex proposal and will implement it cannot be gained through the staged approach proposed by the AER.

3. Opex incentives

The AER has previously implemented an Efficiency Benefit Sharing Scheme (EBSS) to provide an incentive to the NSPs to reduce their opex to efficient levels. On the assumption that the NSP is operating at the efficient level, the AER uses the opex from the most recent year of operation to be the benchmark for setting the opex form the next regulatory period.

The Issues Paper identifies that this results in an incentive to increase opex in the base year and the "power of the incentive" declines over the term of the period. The Issues Paper posits that these two detriments will be addressed by making the incentive continuous between regulatory periods.

The MEU agrees that making the incentive continuous across regulatory periods will retain the same power of the incentive within a regulatory period but the MEU does not consider that the incentive to increase the opex in the base year will be addressed. Whilst making the incentive continuous will result in any penalty seen for year 4 opex carried forward, the MEU considers that it does not address the potential for the inflated opex to be used as the basis for setting the opex allowance in the next period.

The AER opines that on an NPV basis (using a real discount rate of 6%) inflating the year 4 opex and using the higher opex allowance for the next regulatory period whilst applying the penalty that the year 4 EBSS imposes into the next period, there is no detriment to consumers. The MEU disagrees.

The AER analysis is purely focussed on the impact of the year 4 inflated opex. What the analysis does not address is that the year 4 opex is inflated by reductions in other years, thereby increasing the under-run in those other years which is carried forward by the EBSS related to those years into the next regulatory period.

The opex for the next regulatory period is than set at an inflated level for the entire next period providing the potential for even larger under-runs (with the associated EBSS benefits) for all years. This increases the value of the cost shifting into the year 4 opex which is not addressed by the EBSS.

This detriment can be addressed by applying a sequential process to setting opex, viz:

1. Setting the future opex allowance based on benchmark data
2. Averaging out the opex for the previous 5 years (including the year 4 opex and the year 5 opex from the previous year).

3.1 Benchmarking opex and the EBSS

There is no certainty that the current opex of an NSP is efficient, and only benchmarking will provide an indication of its efficiency.

An EBSS does not, of itself, ensure that the NSP is near the efficient level. An NSP could be unaware that it is operating well away from the efficient frontier and only a well implemented and strong benchmarking process will identify how close an NSP is to the efficient frontier.

The first step to achieving the benefit of an EBSS in a regulatory process is to ensure that the opex allowances are initially close to the efficient frontier. If they are not, then there is no certainty that the NSP is even aware that it needs to identify practices that will make it more efficient.

Providing an allowance that is inefficient has the potential for requiring consumers to continue to pay in excess of the efficient costs and provide the NSP with the potential of windfall profits as it trends towards the efficient frontier. An incentive program should be about forcing incremental improvement rather than rewarding for being inefficient in the first place.

So the first step is to set an opex allowance that is close to the efficient frontier.

3.2 Averaging and the EBSS

Once the opex is determined to be near the efficient frontier, the next step is to ensure that the amount used for setting opex in the next period needs to be identified.

The assumption made by regulators is that the most recent opex amount is efficient providing there is an incentive program in place. The MEU agrees with this in principle, but points out there is also an incentive to inflate the opex in the year that is to be used as providing the most efficient opex.

Thus there is a need to balance the two incentives.

If the opex is set near to the efficient frontier, the impact of year on year increases in efficiency will be modest. This then allows the ability to average opex over a number of years without losing much of the marginal improvements made between consecutive years, but minimises the ability to cost shift into the “efficient” year.

The MEU considers that averaging over three years of a regulatory period is quite reasonable, providing that adjustments are made for scale, growth and other recognised inflators of opex in the earlier years. However, if the AER identifies that the final year opex in a regulatory period (this is the year that cannot be used for forecasting) is significantly different (usually it is less than

the forecast made in the application) then this would guide the AER to use even more years for the averaging – even to the extent of using the first 4 years of a period plus the fifth year of the previous period.

The MEU proposes that the AER should retain the discretion to implement its forecasts based on any one year (usually this would be the last full year of data) and to implement averaging if there is concern that there has been cost shifting into the assumed most efficient year.

3.3 Opex: carry forward or repricing

The purpose of an EBSS is to incentivise the NSP to reach the efficient frontier for opex. What has been seen in recent times is the NSP gaining the benefit of an EBSS and then advising that the opex in the efficient year is insufficient for the next regulatory period. The NSP then excises a number of elements of opex and reprices these to form a new but higher base cost for the element, but carries forward other elements of opex into the next period. The impact of this is that the EBSS is not being used to incentivise all opex.

The MEU has considerable concern with this practice, as it reduces the effectiveness of the incentive regime and moves towards a cost of service regime.

As a basic response to this practice, the MEU considers that no EBSS positive amounts should be transferred from one regulatory period to the next, although negative amounts should still be imposed. This reflects the lack of long term benefits that consumers get from the EBSS.

4. Summary and conclusions

For the sake of consistency, the MEU provides a listing of all the incentives that are in place or are proposed. The importance of such a listing is that it allows a review of all incentives that will apply so that they can be assessed in their totality

Overt incentives being considered by the AER

- Efficiency Benefit sharing scheme (EBSS) for opex
- Capex Efficiency sharing scheme (CEES) for capex
- Service standards sharing schemes for TNSPs (STPIS) and DNSPs
- Actual/Forecast depreciation being rolled in

Incentives embedded in the rules

- Overstatement at a revenue reset of expected replacement capex leads to an inflated allowance, providing a benefit should the actual need be lower – this is entirely within the control of the NSP[10]
- Automatic roll in of capex (incentivises overspend of capex subject to the now required review when there is an overspend)
- Allowing deferral of replacement capex to another regulatory period incentivises overstatement of replacement capex
- Differential between allowed WACC and actual WACC incentivises overspend of capex
- Capitalising opex incentivises gaming of the opex incentive scheme
- Inflated depreciation via DORC incentivises earlier cash flow
- Rapid depreciation incentivises earlier cash flow

It is essential that the AER, in assessing all of the incentives that are available to the regulated firms, recognises that they are all inter-related and the regulated firms will seek to maximise the benefit to the firms by deliberately modifying their expenditure patterns and seeking the optimum benefit from the various schemes. To overcome this, the schemes need to be harmonised with each other to ensure there is no incentive to "game" the incentive programs.

Any incentive program should attempt to replicate the rewards and losses that would be achieved if the regulated firm was subject to competition. The MEU has attempted to explain what would occur in a competitive environment if capex and opex is reduced below the allowance and if there is an overspend against the allowance. It must be remembered that the capex and opex

[10] In contrast, augmentation capex is dependent on the actual growth which is not controlled by the NSP as it is exogenous

allowances are costs which must be accommodated within selling prices. Selling prices are determined by the market.

Great care is required to ensure that the initial capex allowance is the minium required to ensure the reliability of the network and to accommodate its efficient growth. The first step in applying appropriate incentives is to ensure the capex allowance is efficient. An incentive program should not be expected to achieve large savings but to ensure there is continuous improvement in efficiency.

Similarly with opex, setting the allowance near the efficient frontier is the first step in ensuring the maximum benefit of an incentive scheme with the incentive program targeted to achieve incremental efficiency improvements. The opex incentive scheme loses increasing effect the more elements of the opex are excluded from the incentive scheme.

In a competitive market exogenous impacts have to be included by firms without having the ability to pass these through to their customers. The MEU considers that NSPs should not be able to have the benefit of excluding the impacts of exogenous costs from their incentive scheme. When such costs do occur, they drive firms to seek even more efficiencies in other areas of their cost structures and the MEU considers that these same pressures should apply to NSPs.

5. Response to the specific questions raised

The MEU provides responses to these questions as requested but advises that in responding to these, the MEU highlights that the responses reflect the commentary provided in the above sections.

#	AER Question	MEU response
Ex ante measures for capital expenditure		
1	**Do stakeholders agree with the issues that we have identified about declining incentives for efficient capex? Are there any other issues that could arise from declining incentives for efficient capex? If so, what are these?**	Yes In addition to the declining incentive, the NSP is incentivised to defer capex for the same project into another period. The deferral provides an NSP with significant benefits, but does not provide any benefit to consumers. This impact would not be picked up by using a continuos incentive because the cost of the deferred project would be added to the capex allowance in the reset for the next regulatory period.
2	**Do stakeholders support our initial view that any capex sharing scheme should provide continuous incentives in each year of a regulatory control period? Please give reasons to support your view.**	Yes, to overcome the impact of the declining incentive that occurs if capex is assessed purely during any single regulatory period. Project deferral into the next reset period increases the capex allowance in the next period. Whilst using forecast depreciation reduces the negative impact on consumers it does not fully recompense consumers of the costs they incur because of the deferral
3	**Do stakeholders support our initial view that any capex sharing scheme should provide a reward for underspending of between 20 and 30 per cent? Please give reasons to support your view.**	Support is provided for an asymmetric reward/penalty arrangement for the CESS. As noted in section 2, a firm in a competitive environment carries 100% of the cost of the over-run abut is likely to accrue less than 100% of the benefit from a capex under-run. The MEU is uncertain as to the actual benefit that would be delivered as a result of the CEES, however, the MEU does accept that the current arrangements provide a considerable benefit to the NSP by underspending on its capex allowance.

		There is also concern about the issue of capex under-run caused by a project deferral – see comments to Q1
4	**Do stakeholders agree with our initial position that the penalty for overspending should be greater than 30 per cent? Please give reasons to support your view.**	See answer to Q3
5	**Do stakeholders agree with our initial position that one capital expenditure sharing scheme should apply to all NSPs? Please give reasons to support your view.**	Yes There is no cogent reason not to have a single scheme to apply across the NEM. Allowing different approaches provides NSPs with the ability to game the incentive scheme to maximise the benefit they achieve.
6	**If we were to tailor different schemes for individual NSPs, what criteria should we use to differentiate between NSPs?**	
7	**Are there any categories of capex that should not be covered by a capital expenditure sharing scheme? Why?**	Augmentation capex and replacement capex are two categories that are susceptible to "gaming" by under-running and thereby generating a CESS reward. In the case of augmentation capex (needed to meet expected demand, an overstatement of expected increase would result in a higher allowance at a reset. If the expected growth does not occur, then the capex will not be used providing a reward. This has been seen in recent times because the expected growth in demand did not eventuate. In the case of replacement capex, the failure to replace assets is attributed to appropriate deferral of expenditure. The work not completed in one regulatory

		period is added to the work for the next period, providing consumers with no benefit from the deferral but allowing the NSP to garner a reward. This has been seen most recently in the gas market with expected lining of gas mains being much less than the amount forecast for the period. Replacement capex is entirely within the control of the NSP.
8	**When, if at all, might it be appropriate to make adjustments to a type of capex before applying a CESS? Why?**	The allowed capex should be adjusted for actual growth and for achieved replacement before any CESS is applied. This prevents consumers for paying a reward for work not done or required
9	**Do stakeholders agree with our initial position to apply a continuous asymmetric capex scheme with higher penalties for overspending than rewards for underspending? Please provide reasons.**	Yes. See earlier commentary
10	**Do stakeholders agree with our initial position that the penalties and rewards for a capex scheme should be included in the guidelines rather than determined as part of a determination? Please provide reasons.**	The guideline should be clear on what the CESS is to achieve and how it will be applied. The guideline should include for how the allowance is to be adjusted for changes in actual growth and replacement.
11	**Do stakeholders agree that forecast depreciation should be the default form of depreciation used to roll forward the RAB**	In principle, forecast depreciation should be used all the time because consumers have paid the forecast depreciation in the regulated charges so it is appropriate to apply forecast depreciation to the roll forward model. If there is a capex underrun, using forecast depreciation will provide a partial

	except where there is no capex sharing scheme in place or where there is persistent overspending by a NSP?	offset to consumers for the initial benefits the NSP gets from the capex underspend plus the resulting CESS reward If there is an efficient overspend, the overspend would be added to the RAB, and the slight loss the NSP will incur will provide a low powered incentive to minimise the over-run through project prioritisation. If there is an inefficient overspend, the overspend will not be included in the RAB. Therefore using forecast depreciation will not impact consumers, which is the correct outcome.
12	**Do stakeholders agree with the factors that we have identified for consideration in determining whether to apply forecast or actual depreciation?**	See response to Q11
Ex ante measures for operating expenditure		
13	**If we continue to use a revealed cost approach to forecast opex, should the same EBSSs remain largely in place, or are more significant changes required?**	The EBSS should be retained in the form proposed but there are other elements that should be implemented – these are outlined in section 3 above and cover getting the opex initially at the efficient level through benchmarking and implementing averaging opex from more than one year to ensure that cost shifting has not occurred.
14	**Does an incentive power of 30 per cent provide a sufficient incentive to achieve efficiency gains?**	Any benefit to the NSP will provide some incentive. If the current arrangements are considered to provide sufficient incentive, then increasing the incentive (as is proposed by making is continuous across regulatory periods) should provide sufficient incentive to NSPs to reduce their opex
15	**Are there any circumstances where**	Allowing the repricing of elements of the opex (see section 3.3 above) to a new base reduces the incentives, and therefore would result in an imbalance of

	balancing the opex incentive with the capex and service level incentives may not encourage economic efficiency?	incentives favouring one aspect (capex, opex or service) over another.
16	**Do stakeholders agree the EBSSs should provide a continuous incentive in each year of a regulatory control period? Are there any circumstances where a continuous incentive may not encourage economic efficiency?**	Yes
17	**Do stakeholders agree the EBSS rewards and penalties should be symmetrical, regardless of the forecasting approach?**	Yes
18	**Should uncontrollable costs be excluded from the operation of the EBSSs?**	No. Consumers have to pay for all aspects of opex regardless whether they are controllable or uncontrollable. The incentive program is intended to replicate the competitive market and in a competitive market, firms have to accommodate both controllable and uncontrollable costs within their product pricing (a good example of this is the impact of the high $A which causes a reduction in selling prices to match imports)
19	**Should the approach to addressing uncontrollable costs differ depending on the forecasting approach?**	No. See response to Q18

20	**Are there any other reasons to exclude costs from the operation of the EBSSs?**	No. See response to Q18
21	**Should the EBSSs define specific costs to be excluded from its operation? If yes, which costs should be excluded from the scheme? If no, should criteria be defined which would guide which costs would be nominated as excluded costs?**	No. See response to Q18
22	**Should all excluded cost categories be determined prior to the commencement of the regulatory control period in which the scheme applies?**	If there are costs excluded (which the MEU considers there should not be), then they should be pre-determined and a method implemented to ensure that the costs are legitimate and not inflated.
23	**Should the EBSSs provide greater flexibility as to how opex forecasts are adjusted for the purposes of calculating rewards and penalties under the scheme?**	The EBSS carry forward should be calculated on an equitable and comparable basis. If the forecast was based on one set of assumptions and actual inputs are different, then the EBSS carry forward should be adjusted to reflect only the effort that the NSP has instituted rather than be allowed windfall gains/losses.
Ex post measures for capital expenditure		

24	**Do stakeholders agree with having a staged approach to the ex post review?**	No The rules are clear. If there is overspend then all capex needs to be assessed for inefficient capex. The rules do not state that the overspend must be substantial[11]. In principle, the rules imply that an overspend is likely to be inefficient and therefore the onus should lie with the NSP to prove the capex is efficient. If the actual capex is efficient, then it should be added to the RAB and if the capex is inefficient, the inefficient capex should not be added to the RAB. Just because there is a CESS, that there is effective project management in place or that a RIT was undertaken does not imply that the resultant capex will be efficient[12]. The trigger must be that if there is an overspend, then all capex should be assessed for efficiency and inefficient capex not be allowed into the RAB. This means that stage 4 be implemented when there is an overspend. The other aspects (history of overspending, not comparing favourably, failure of service standards) listed in stage 1 to warrant a deeper investigation of capex are appropriate to trigger stages 2 and 3 and even stage 4 if needed.
25	**Are the issues that the AER proposes to consider as part of the ex post review appropriate?**	There should not be a list of aspects which limits the ability of the AER to investigate. While all of the aspects noted are appropriate, the MEU does not consider the listing is exhaustive and should not be assumed to be so. The guideline should not be definitive in this regard.

[11] After all what is "substantial". This would need to be quantified.

[12] For example, a RIT may have been undertaken and, based on the inputs to the RIT, the most efficient solution is implemented. If the inputs to the RIT were wrong and the wrong solution implemented, then excellent project management would not make the outcome efficient.

26	**Are there any other factors that the AER should consider in conducting an ex post review?**	See response to Q25
27	**Are there any additional factors that we should consider before excluding an amount of an overspend from a NSP's RAB?**	As noted in the response to Q24, the implication of the new rule is that an overspend is likely to include inefficient capex. The onus of proof that all capex is efficient therefore lies with the NSP Inefficient capex has to be excluded from the RAB. The AER needs to do whatever is necessary for it conclude whether capex is efficient or not. Limiting its ability to fully investigate through noting specific aspects could lead to appeals of an AER decision.
28	**Do you think our approach for the assessment of related party margins is reasonable? What other approaches may be appropriate?**	The MEU is not convinced that the AER approach to assessing related party margins is necessarily appropriate (ie the "presumption test" might not be sufficient) The MEU considers that the guideline should refer to the testing that is done at the time of the revenue reset, and that the ex post review will follow the same principles as were used during the reset process.
29	**Do you think our approach for the assessment of capitalisation requirements is reasonable? What other approach may be appropriate?**	The decision to change a capitalisation policy should be the trigger to review capex to identify if the change is appropriate and if it has been applied properly. However, the issue then arises whether there is consistency between capitalisation policies between all NSPs. As the AER is to rely more on benchmarking than in the past, if there are different policies used by different NSPs then this will detract from the accuracy of the benchmarks used. The MEU therefore considers that the AER should establish the capitalisation policy for all

		NSPs to use in the regulatory accounts. This would still allow each NSP to use its own policy in its own financial accounts.